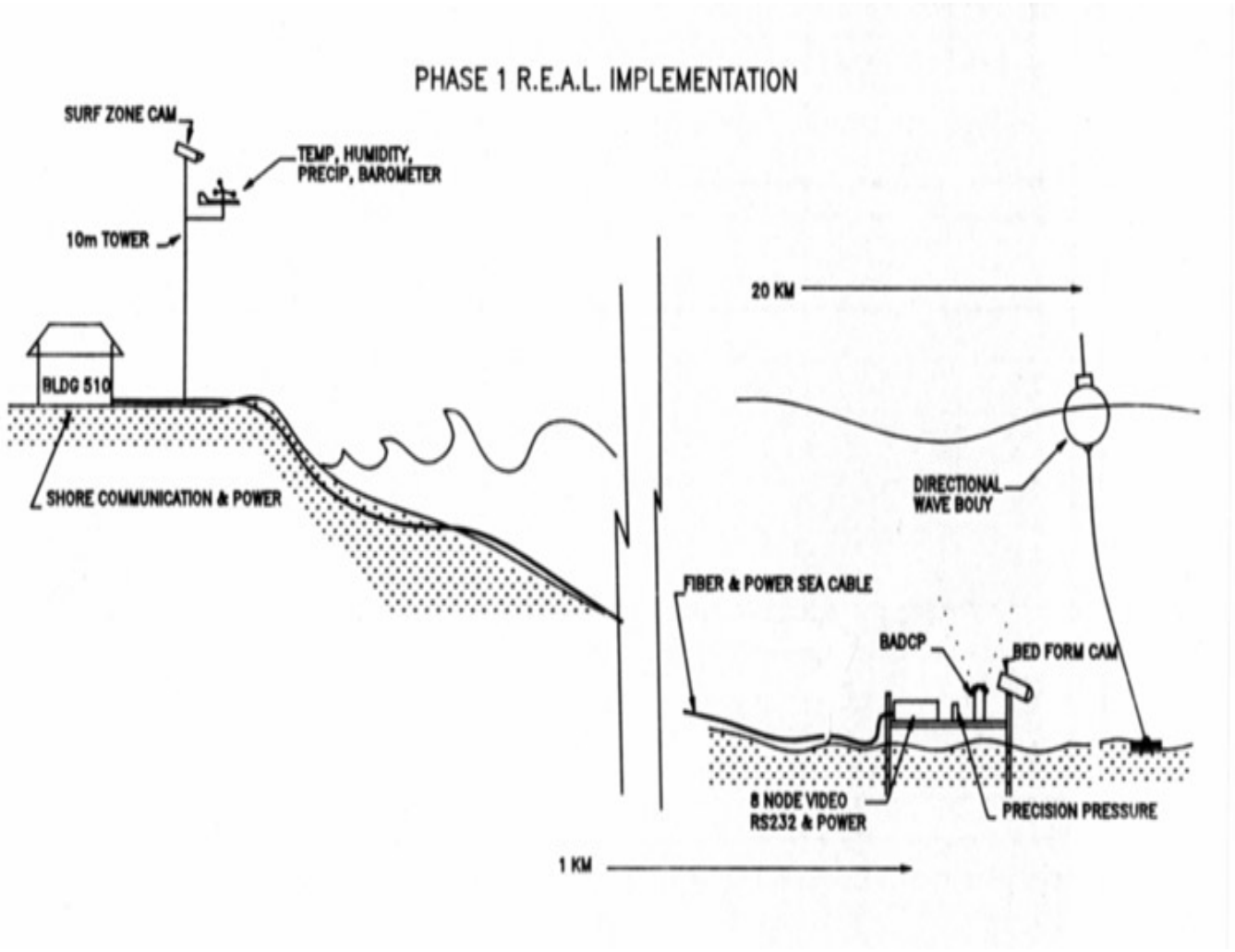
2003-02

REAL / MISO Background

REAL / MISO Background



The Monterey Inner Shelf Observatory (MISO) is a component of the Rapid Environmental Assessment Laboratory (REAL) being developed by the oceanography and meteorology departments at the Naval Postgraduate School . The REAL laboratory will encompass a range of littoral oceanography observation and modelling programs focused on littoral (coastal) oceanography. MISO has a long term cabled instrument frame deployed at the southern end of Monterey Bay in 12m of water, about 600m from the shoreline, with support instruments on the sand dunes inshore from the underwater frame. The instruments on the 12m frame are designed to study the interaction of winds, waves and the sediment bed in the inner continental shelf, just offshore from the surf zone. Surface observations of the surf zone and breaking waves are made from an automated digital camera located on the sand dune overlooking the underwater frame. By using a high

bandwidth multifiber optic and power cable connected to a shore terminus, long term measurements of these importatant coastal processes can be made for use in research programs and teaching by faculty of the Oceanography Department at the Naval Postgraduate School and shared with other users. Hourly summaries of the data sets are available through the main MISO web site

The inner shelf observatory was designed and implemented by Assosciate Research Professor Tim Stanton and his research group, and is jointly sponsored by the Naval Postgraduate School Department of Oceanography as a teaching resource and the Office of Naval Research as a component of the Coastal Processes and Physical Oceanography programs and the Shoaling Waves Experiment.

An offshore directional wave buoy deployed in January 2000 by Associate Professor Tom Herbers provides hourly updated directional wave spectra and wave height / direction timeseries. Other components of REAL under development in eraly 2000 include a complete bulk meteorological observation station which is being assembled near the surf camera on the sand dunes, by the NPS meteorology department. An offshore ADCP with acoustic telemetery are planned by other oceanography faculty members for mid 2000.

Last Reviewed: February 2003
stanton@nps.edu